

### REMARKS

This Amendment is filed in response to the Office Action dated December 24, 2002, which has a shortened statutory period set to expire March 24, 2003.

In the present paper, Claims 2-3, 5, 12, 20-27, 30, 33-34, and 39-45 are amended, Claims 31 and 32 are re-presented as Claims 46 and 47, respectively, and new Claims 48-81 are added. No new matter is added. Claims 1, 4, 6-11, 13-19, 28-29, 31 and 32 are cancelled.

Reconsideration and allowance of Claims 2-3, 5, 12, 20-27, 30, and 33-81 in view of the amendments and the following remarks is respectfully requested.

### Allowable Subject Matter

The Examiner has objected to Claims 5, 31, and 32 as being dependent upon a rejected base claim, but has indicated that these claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant notes with appreciation the acknowledgement by the Examiner of allowable subject matter in Claims 5, 31, and 32.

Accordingly, Claim 5 is amended to incorporate the language of Claim 1, thereby rendering Claim 5 allowable. As noted by the Examiner, the prior art does not teach or suggest "an address decoder" as recited by Claim 5.

Note that the incongruous phrase "said surface of said substrate" that was inadvertently entered in Claim 1 originally is not incorporated into Claim 5. Note further that Claim 5 is also amended to include the term "capable of" so that the terms "programmable" and "programmed" are not inconsistent.

Claims 2-3, 12, 20-27, 30, and 33 are amended to depend on Claim 5, and are therefore all placed in condition for allowance.

Claim 31 is re-presented as Claim 46, incorporating the language of Claim 1, and is therefore allowable. As noted by the Examiner, the prior art does not teach or suggest "a read circuit" as recited by Claim 46 (original Claim 31). Claim 32 is re-presented as Claim 47, which depends from Claim 46 and is therefore also allowable.

### Claim Objections

The Examiner has objected to an informality in line 2 of Claim 1. Claim 1 has been cancelled, thereby rendering this objection moot.

The Examiner has also objected to the recitation of "The device" rather than "The optical device" in Claims 2-33. The relevant claims have been amended accordingly to recite "The optical device" and correct these typographical errors.

The objections raised by the Examiner are therefore fully addressed. Applicant thanks the Examiner for his careful reading of the claims.

Applicant further notes the following amendments to the claims made to correct various typographical and editing errors that were not pointed out by the Examiner.

Claim 30 is amended to recite "said reflective filament pattern" so that proper antecedent basis is provided by Claim 5, which recites "a reflective filament pattern".

Claim 33 is amended to recite "wherein said programmable elements comprise normally-shortening conductive filaments between contact areas". By removing the inadvertently included phrase "two filament", proper antecedent basis is provided for the

originally-entered phrase "said contact areas" subsequently recited in Claim 33.

Claim 33 is also amended to recite "said normally-shortening conductive filaments" to maintain consistency with the preceding portion of Claim 33.

As noted above, these amendments to the claims are made simply to correct various typographical and editing errors. No new matter is added.

#### Rejections under 35 U.S.C. 112

Claims 1-4, 12-16, and 40-45 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

The Examiner points out that "[c]laims 1-4 and 12-16 recite 'said elements' [with] insufficient antecedent basis for this limitation in the claims." Claims 1, 4, and 13-16 are cancelled, rendering the rejection of those claims moot.

Claims 2-3 and 12 are amended to recite "programmable elements" so that proper antecedent basis is provided by Claim 5. (As described above, Claims 2-3 and 12 are amended to depend from Claim 5, which incorporates all of the limitations of Claim 1, including the limitation "programmable elements".) This amendment corrects a typographical error in labeling. No new matter is added.

The Examiner also points out that "Claim 3 recites the limitation 'said contacts' [but that t]here is insufficient antecedent basis for this limitation in the claim." Claim 3 is amended to correct this typographical error and recites "said conductive contacts". No new matter is added. Proper antecedent basis is provided for this limitation earlier in Claim 3 by the recitation "wherein each of said elements has conductive contacts".

The Examiner further notes that "Claims 40-45 recite the limitation 'said elements' ... [whereas in] independent claim 34, applicant discloses 'an array of elements'". Claim 34 is amended to recite "providing programmable elements on a surface of a substrate", thereby providing proper antecedent basis for Claims 40-45, which have been amended accordingly to recite the limitation "said programmable elements". No new matter is added.

For the above reasons, Applicant respectfully requests reconsideration and withdrawal of the rejection of Claims 2-3, 12, and 40-45 under 35 U.S.C. 112.

#### Rejections under 35 U.S.C. 102

Claims 1-4, 6-12, 17-22, 26-30, and 34-39 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,208,463, issued March 27, 2001 to Hansen et al. (hereinafter "Hansen"). Applicant respectfully traverses this rejection.

#### Claims 1-4, 6-12, 17-22, and 26-30

Claims 1, 4, 6-11, 17-19, and 28-29 are cancelled, rendering the rejection of those claims moot. Claims 2-3, 12, 20-22, 26-27, and 30 all depend from Claim 5 (as described above) and are allowable for at least the same reasons as Claim 5.

#### Claims 34-39

Claim 34, as amended, recites "programming an array of **programmable elements** on a surface of a substrate to create a pattern of reflective filaments". (Emphasis added.) Support for this amendment is found in the specification as originally filed at page 2, lines 12-23. No new matter is added. Programmable elements beneficially allow a device to be configured by a user.

The Examiner indicates that the "thin, elongated elements 12" of Fig. 1 of Hansen correspond to the "programmable elements" recited by Claim 34. Applicant respectfully submits that this is an improper characterization of Hansen. "Programmable", as defined by the Cambridge English Dictionary (<http://www.cambridge.org>), means "able to be programmed". Therefore, a "programmable" device is a device that is "able to be programmed." Accordingly, the elements 12 of Hansen are not "programmable", since Hansen neither teaches nor suggests that those elements can be modified in any way.

Fig. 2 of Hansen shows a "polarizer device 10 [that] has a generally parallel arrangement of thin, elongated elements 12" (Hansen, col. 13, lines 49-51) that are formed on "a substrate 18 for supporting the arrangement of elements 12." (Hansen, col. 14, lines 47-48.) Hansen describes a purely static arrangement of polarizing elements 12 that, once formed, can no longer be changed. Nowhere does Hansen describe, depict or even indicate that those elements have the ability to be programmed or even receive programming inputs. Therefore, Hansen does not teach or suggest "programmable elements" as recited by Claim 1.

Thus, for at least the above-listed reasons, Claim 34 is allowable over Hansen under 35 U.S.C. 102(e). Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of Claim 34.

Claims 35-39 depend from Claim 34, and are therefore allowable over Hansen under 35 U.S.C. 102(e) for at least the same reasons presented for Claim 34. Accordingly, Applicant requests reconsideration and withdrawal of the rejection of Claims 35-39 under 35 U.S.C. 102(e).

### Rejections under 35 U.S.C. 103

Claims 13-16, 23-25, 33, and 40-45 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen. Applicant respectfully traverses this rejection.

### Claims 13-16, 23-25 and 33

Claims 13-16 are cancelled, rendering the rejection of those claims moot.

Claims 23-25 and 33 depend from Claim 5, and are therefore allowable over Hansen for at least the reasons presented for Claim 5.

Moreover, Claims 23-25 recite "diodes", "zener diodes", and "transistors", respectively, none of which are taught or suggested by Hansen. Likewise, Claim 33 recites "a normally-shortening conductive filament ... forming an open circuit between said two filament contact areas when blown during programming", which is also neither taught nor suggested by Hansen.

Hansen teaches only that the polarizing elements 12 are "an arrangement of generally parallel elongated elements". (Hansen, col. 12, line 9.) (See also Figs. 1 and 2 of Hansen.) The mere fact that Hansen indicates that "elements 12 are formed of any material that is capable of being formed into a broad spectrum mirror, such as a metal" (col. 14, lines 42-44) does not make obvious the replacement of those metal elements 12 with diodes, zener diodes, transistors, or programmable normally-shortened conductive filaments. Hansen never shows or indicates that polarizing elements 12 are or can be part of an electrical circuit, and therefore never indicates that polarizing elements 12 can be replaced with electrical devices.

Accordingly, the Examiner's assertion that "it would have been obvious to a person of ordinary skill in the art to use ... diodes, zener diodes, or transistors, or normally-shortening

conductive, or fuses or anti-fuses" with Hansen is impermissible hindsight. There is no way shown by Hansen or by the Examiner for inclusion of such elements in Hansen's structure.

Therefore, for at least the above-listed reasons, Applicant respectfully requests withdrawal of the rejection of Claims 23-25 and 33 under 35 U.S.C. 103(a). If the Examiner does not withdraw the rejection, then it is requested that the Examiner support the rejection with a citation of prior art references supporting the proposed modification of Hansen.

#### Claims 40-45

As noted above, Hansen does not teach or suggest "programmable elements" as recited in Claim 34. Claims 40-45 depend from Claim 34, and are therefore allowable over Hansen for at least the reasons presented for Claim 34.

Moreover, Claims 40-45 recite "diodes", "zener diodes", "transistors", "a normally-shortening conductive filament between two filament contact areas", "fuses" and "anti-fuses", respectively. None of these devices are taught or suggested by Hansen. As noted above, Hansen never shows or indicates that polarizing elements 12 are or can be part of an electrical circuit, and therefore never indicates that polarizing elements 12 can be replaced with electrical devices.

Therefore, for at least the above-listed reasons, Applicant respectfully requests withdrawal of the rejection of Claims 40-45 under 35 U.S.C. 103(a). If the Examiner does not withdraw the rejection, then it is requested that the Examiner support the rejection with a citation of prior art references supporting the proposed modification of Hansen.

### New Claims

Applicant has added new Claims 48-81. Support for these claims exists throughout in the specification as originally filed.

More specifically, support for Claims 48-51 is found in the specification as originally filed at page 2, lines 7-9 and lines 12-23, and at page 4, lines 9-18.

Support for Claim 52 is found in the specification as originally filed at page 8, lines 14-17.

Support for Claim 53 is found in the specification as originally filed at page 4, lines 5-26.

Support for Claim 54-57 is found in the specification as originally filed at page 3, lines 16-21, and at page 8, lines 18-22.

Support for Claim 58 is found in the specification as originally filed at page 9, lines 1-10 and Fig. 8.

Support for Claim 59-60 is found in the specification as originally filed at page 6, lines 10-14 and in Fig. 4.

Support for Claim 61 is found in the specification as originally filed at page 6, line 26 through page 7, line 1.

Support for Claim 62 is found in the specification as originally filed at page 7, lines 25-29 and Fig. 6.

Support for Claim 63 is found in the specification as originally filed at page 5, line 27 through page 7, line 4, and in Figs. 4 and 5.

Support for Claims 64-66 is found in the specification as originally filed at page 4, line 9-26, page 8, lines 18-29, and Figs. 1 and 7.

Support for Claim 67 is found in the specification as originally filed at page 9, lines 1-10 and Fig. 8.



Support for Claims 68-69 is found in the specification as originally filed at page 5, line 27 through page 6, line 9 and Fig. 4.

Support for Claims 70-73 is found in the specification as originally filed at page 6, line 26 through page 7, line 24, and Fig. 5.

Support for Claim 74 is found in the specification as originally filed at page 7, line 25 through page 8, line 4, and in Fig. 6.

Support for Claims 75-76 is found in the specification as originally filed at page 5, line 27 through page 7, line 4, and in Figs. 4 and 5.

Support for Claims 77-80 is found in the specification as originally filed at page 3, lines 16-21, and at page 8, lines 18-22.

Support for Claim 81 is found in the specification as originally filed at page 9, lines 1-10 and Fig. 8.

The Examiner may feel that the rejection regarding Claims 1 and 34 is applicable to Claim 48. Applicant respectfully maintains otherwise. Claim 48 recites "one or more **programmable elements being selectively programmable** to create a reflective filament pattern". (Emphasis added.) Claim 48 is therefore allowable for reasons similar to those discussed above with respect to Claim 34. Claims 49-62 depend from Claim 48, and are therefore allowable for at least the same reasons as Claim 48.

The rejections raised by the Examiner with respect to Claims 1 and 34 are likewise not applicable to new Claims 63 and 75. New independent Claims 63 and 75 both recite:

each of the **first plurality of contact pairs** ... coupled by at least one of the plurality of reflective filaments, and none of the **second plurality of contact pairs** being coupled by any of the plurality of reflective filaments. (Emphasis added.)

Even assuming, arguendo, that the polarizing elements 12 of Hansen do represent "programmable elements" as indicated by the Examiner, Hansen teaches only that elements 12 are standalone structures that are not part of any electrical circuit. The polarizing elements 12 of Hansen therefore do not have "contact pairs" as recited by Claims 63 and 75.

Thus, Applicant respectfully submits that the rejections raised with respect to Claims 1 and 34 are not applicable to new Claims 63 and 75, and that new Claims 63 and 75 are therefore allowable.

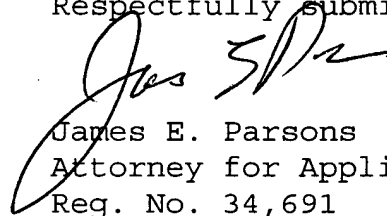
New Claims 64-74 depend from Claim 63, and are therefore allowable for at least the reasons presented for Claim 63. New Claims 76-81 depend from Claim 75, and are therefore allowable for at least the reasons presented for Claim 75.

CONCLUSION

Claims 2-3, 5, 12, 20-27, 30, and 33-81 are pending in the present Application. Reconsideration and allowance of these claims is respectfully requested in light of the above amendments and remarks.

If there are any questions, please telephone the undersigned at (408) 451-5906 to expedite prosecution of this case.

Respectfully submitted,

  
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I hereby certify that this correspondence is being deposited with the United States Postal Service as FIRST CLASS MAIL in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C., 20231, on **March 21, 2003**.

3/24/03        
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